



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|-----------------------|---------------------|------------------|
| 09/868,113 | 08/17/2001 | Paul Gordon Robertson | 087805-9026 | 5734 |
| 23409 | 7590 | 12/09/2004 | EXAMINER | |
| MICHAEL BEST & FRIEDRICH, LLP 100 E WISCONSIN AVENUE MILWAUKEE, WI 53202 | | | COLIN, CARL G | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2136 | |
| DATE MAILED: 12/09/2004 | | | | |

9

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/868,113

Applicant(s)

ROBERTSON, PAUL GORDON

Examiner

Carl Colin

Art Unit

2136

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --***Period for Reply****A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.**

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 17 August 2001.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-21 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-21 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on 17 August 2001 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) Notice of References Cited (PTO-892)
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6,7,8.

4) Interview Summary (PTO-413) Paper No(s). _____.
5) Notice of Informal Patent Application (PTO-152)
6) Other: _____.

DETAILED ACTION

1. In response to a pre-amendment filed on 8/17/01, Applicant amends claims 4-7, 11-16, 18, and 20 and cancels claim 22. Pursuant to USC 131, claims 1-21 are presented for examination.

Claim Objections

2. **Claim 18** is objected to because of the following informalities: “an” process should be -- a-- process. The word “authorized” and “characterized” are misspelled in claims 9, 18, and 19.

Claims 1, 8, 18, 19, and 21 are objected to for lack of indentation of limitation. See MPEP § 608.01(m). Appropriate correction is required.

Claims 1 and 8 and the intervening claims are objected to because of the following informalities: the term “adapted to” is not a positive limitation and should be corrected. Appropriate correction is required. See MPEP § 2106.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

Claims 2, 3, 21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3.1 Regarding **claims 2, 3, 21** the phrase "substantially fewer" or "substantially identical" renders the claim(s) indefinite because the claim(s) include(s) elements not actually disclosed (those encompassed by " substantially fewer or identical"), thereby rendering the scope of the claim(s) unascertainable. See MPEP § 2173.05(b).

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the

reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4.1 **Claims 1, 8, 9, and 12** are rejected under 35 U.S.C. 102(e) as being anticipated by US Patent 5,930,361 to **Hayashi et al.**

4.2 **As per claims 1 and 8, Hayashi et al** discloses a digital video signal processor having an input adapted to receive a digital video signal having fast timing signal references at fixed first locations within the line and picture structure; a timing reference stripper for removing said first timing signal references from the digital video signal and a timing reference processor for inserting second timing signal references into the video signal at locations other than said first locations, for example (see column 6, lines 18-26; columns 7-8). **Hayashi et al** further discloses an input adapted to remove and derive from said second timing reference signal references appropriate timing references for use in further processing of the digital video signal, for example (see column 10, line 50 through column 11, line 38; column10)

As per claim 9, Hayashi et al discloses a digital video characterized in the timing reference signals are transmitted to each scan line that meets the recitation of transmitted less than twice per line in order to inhibit unauthorized use of the video information, for example (see column 3, lines 1-37; columns 7-8).

As per claim 12, Hayashi et al discloses the limitation of in which there is no explicit F, V and H information in the timing reference signals, for example (see column 6, lines 18-26 and column 9, lines 32-60).

5. **Claims 18-20** are rejected under 35 U.S.C. 102(e) as being anticipated by US Patent 6,233,718 to **Vernon et al.**

As per claim 18, Vernon et al discloses a digital video interface in which data words are scrambled by a process which substitutes alternative data words for input data words in a manner known only to authorized recipients of the video, characterized in that specific words are prevented from being transmitted by re-submitting them to the scrambling process repeatedly until a valid word is obtained, for example (see column 2, line 40 through column 4, line 15).

As per claim 19, Vernon et al discloses a digital video interface in which data words are scrambled by a process which substitutes alternative data words for input data words in a manner known only to authorized recipients of the video, characterized in that specific words are prevented from being transmitted by replacing them with unscrambled words, for example (see column 2, line 40 through column 4, line 15).

As per claim 20, Vernon et al discloses the limitation in which invalid unscrambled words are replaced by the corresponding input words to the unscrambling process, for example (see column 2, line 40 through column 4, line 15).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6.1 **Claims 2-7, 10-11, 13-17, and 21** are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 5,930,361 to **Hayashi et al** in view of Non-Patent Literature to **Tynan, D.**; RTP Payload Format for BT.656 Video Encoding; October 1998; "<http://www.rfc-archive.org/getrfc.php?rfc=2431>"; Network Working Group; Pages 1-10.

6.2 **As per claims 2-7, 10-11, 13-15, and 21, Hayashi et al** substantially teaches the claimed apparatus of claim 1. **Hayashi et al** also discloses that the characteristics and scan line locations can be randomized, for example (see column 6, lines 55-67). In columns 7-8, **Hayashi et al** discloses information that can be used as a control input for descrambling. Claims 2-7, 10-11, 13-15, and 21, recite the same inventive concept as claim 1 except for reciting different information that can be included in the reference signal. It is also known in the art that the

reference signals can include the information as recited in those claims. For example, in RFC 2431 publication, **Tynan** teaches relevant information that can be included in the reference signals, for example (see pages 2-4). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of **Hayashi et al** to have the second timing signal reference includes information concerning of lines per picture, the number of lines per picture, length of each line, or aspect ratio within the digital video signal as suggested by **Tynan**. This modification would have been obvious because one skilled in the art would have been motivated by the suggestions provided by **Tynan** so as to allow the authorized set-tops to process the signal.

As per claims 16-17, Tynan discloses the limitation in which the order of significance of the bits is rearranged according to a predictable pattern, for example (see pages 3-4). Therefore, they are rejected on the same rationale as the rejection of claims 2-7, 10-11, 13-15, and 21 above.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carl Colin whose telephone number is 571-272-3862. The examiner can normally be reached on Monday through Thursday, 8:00-6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on 571-272-3795. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

ccs

Carl Colin

Patent Examiner

December 1, 2004

CCL
12/1/04
AU 2131